

Amendments To The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-8 (Cancelled)

9. (Currently Amended) Device for measuring brain parameters

- having a sensor unit (1-3) that is designed in such a way that it

-- is ~~implantable~~ adapted to be implanted distally minimally invasively in the parenchyma and/or in the ventricles,

-- is received proximally in a fastening element (7) that is arranged centered on a base plate (6), wherein

- the sensor unit (1-3) is connected electrically conducting to an electronics unit (11) by means of a micro plug (10),

- the measuring device comprises a proximal assembly comprising:

-- the fastening element (7),
-- the sections of the sensor unit (1-3) received in the fastening element (7),

- the electronics unit (11),
- the micro plug (10),

- wherein the proximal assembly (1-3, 7, 10, 11) is implemented such that it is connected solidly and tightly but removably by means of a semi-flexible cover (12) and positionable adapted to be positioned between the skull bone and scalp[[.]],

- wherein the cover is adapted to fully enclose the proximal assembly to the outside.

10. (Previously Presented) A device according to claim 9, wherein it is subdivided into modules.

11. (Previously Presented) A device according to claim 9, wherein the electronics unit (11) comprises as main components a power supply, a transmitter, a receiver, a control unit and a micro-plug socket.

12. (Previously Presented) A device according to claim 9, wherein the sensor unit (1-3) comprises a catheter (1) of polymeric material and at least one sensor (2, 3) for measuring one of the group of brain pressure, temperature, CO₂ partial pressure, oxygen partial pressure.

13. (Previously Presented) A device according to claim 12, wherein the catheter (1) contains at least one lumen

for sensor components, optionally additionally at least one lumen for the drainage of fluid.

14. (Currently Amended) A device according to claim 12, wherein the catheter (1) ~~that contains~~ has a lumen for ~~[[the]]~~ fluid drainage, ~~[[is]]~~ said catheter (1) being connected by means of a connection piece of the base plate to an additional catheter ~~placed~~ adapted to be positioned in the patient's abdominal cavity and together with the additional catheter forms a closed system.

15. (Previously Presented) A device according to claim 9, wherein the electronics unit (11) is sterilizable and reusable.

16. (Currently Amended) A device according to claim 9, wherein the electronics unit (11) ~~uses endogenous~~ is adapted to use energies being inherently present in a patient's body through utilization of one of the group of thermal elements or piezoelectronic devices or nanoturbines in the subarachnoid space.

17. (New) Device for measuring brain parameters
- having a sensor unit (1-3) that is designed in such a way that it

-- is adapted to be implanted distally
minimally invasively in the parenchyma and/or in the
ventricles,

-- is received proximally in a fastening
element (7) that is arranged centered on a base plate (6),
wherein

- the sensor unit (1-3) is connected electrically
conducting to an electronics unit (11) by means of a micro
plug (10),

- the measuring device comprises a proximal
assembly comprising:

-- the fastening element (7),
-- the sections of the sensor unit (1-3)
received in the fastening element (7),
-- the electronics unit (11),
-- the micro plug (10),

wherein the proximal assembly (1-3, 7, 10, 11) is
implemented such that it is connected solidly and tightly but
removably by means of a semi-flexible cover (12) and adapted
to be positioned between the skull bone and scalp the cover
being adapted to fully enclose the proximal assembly to the
outside,

wherein the sensor unit (1-3) comprises a catheter
(1) of polymeric material and at least one sensor (2, 3) for

measuring one of the group of brain pressure, temperature, CO₂ partial pressure, oxygen partial pressure, and

wherein the catheter (1) contains at least one lumen for sensor components and additionally at least one lumen for the drainage of fluid.

18. (New) Device for measuring brain parameters

- having a sensor unit (1-3) that is designed in such a way that it

-- is adapted to be implanted distally minimally invasively in the parenchyma and/or in the ventricles,

-- is received proximally in a fastening element (7) that is arranged centered on a base plate (6), wherein

- the sensor unit (1-3) is connected electrically conducting to an electronics unit (11) by means of a micro plug (10),

- the measuring device comprises a proximal assembly comprising:

-- the fastening element (7),
-- the sections of the sensor unit (1-3) received in the fastening element (7),
-- the electronics unit (11),

-- the micro plug (10),

wherein the proximal assembly (1-3, 7, 10, 11) is implemented such that it is connected solidly and tightly but removably by means of a semi-flexible cover (12) and adapted to be positioned between the skull bone and scalp the cover being adapted to fully enclose the proximal assembly to the outside, and

wherein the electronics unit (11) is adapted to use energies being inherently present in a patient's body through utilization of one of the group of thermal elements or piezoelectronic devices or nanoturbines in the subarachnoid space.